

U.S. NRC Nuclear Education Grant Program at Ohio State University

Executive Summary

The purpose of the proposed project is to develop, develop and teach, or re-teach courses (or a set of course modules) in the NE Program pertaining to nuclear engineering or nuclear materials science engineering. To broaden the education of students in the Undergraduate Minor and Graduate Programs at OSU, Profs. Xiaodong Sun and Richard Christensen will develop a new course entitled, *Advanced Modeling and Computation of Two-phase Flow Phenomena*. Also, Profs. Tunc Aldemir, Don Miller, and Carol Smidts will develop a new course entitled, *Digital Instrumentation and Control Systems*. To more fully utilize and share the OSU Research Reactor (OSURR) and the facilities of the Nuclear Reactor Lab (NRL), for the purpose of enhancing the educational experience of students at OSU and other institutions, Rob Tayloe and Profs. Don Miller and Thomas Blue will add a set of *Modular Reactor Experiments* to the nuclear reactor laboratory course NE 744. Finally, to solidify the expansions of the NE curriculum that were made in the 2007-2008 funding period, Dr. Wolfgang Windl will refine and re-teach the course *Nuclear Materials and their Degradation in Radiation Fields* and Dr. Richard Denning will refine and re-teach the course *Reactor Safety I* for delivery to Wilberforce University, Central State University, Lakeland Community College and Terra Community College.